REMARKS

This amendment is in response to the Office Action of September 27, 2006. In the Office Action, the Examiner allowed claims 5-23, and rejected claims 1-4, 24 and 25.

The Examiner first rejected claims 1-4 and 24 under 35 U.S.C. 102(b) as being anticipated by *Banks* '290. In order to make this rejection the Examiner takes the position that there is "frictional contact" between the dampening elements 90, 96 (96 should be 91) and the element 92. In effect, the Examiner takes the position that any contact between two elements constitutes "frictional contact." Applicant respectfully disagrees and asserts that in order for contact to be *frictional* there must be some relative sliding movement between the dampening element and the pressing surface.

Websters defines friction as "the rubbing of one body against another" or "in mechanics, the resistance to motion of two moving objects or surfaces that touch." *Compression* is not *friction;* the pressing surface of the element 92 and either of the dampening elements 90, 91 of *Banks* '290 have no relative sliding or rubbing movement, they move together as the dampening element 90 or 91 compresses.

Applicant has amended claim 1 to more particularly set forth the sliding nature of friction as a mechanism for arresting movement: "said second link having a pressing surface that slides against said dampening element as said second link pivots in said second rotary direction to progressively frictionally arrest pivoting movement of the second link in the second rotary direction."

According to the preferred embodiment, the damping element is the dampening block 143 shown in Figure 16. As described in the specification, the dampening block 143 provides a contact surface 154 that is angled to be substantially tangential to the cam surface 148 of the arm 25. Preferably, a center point 156 of a radius 158 of the cam surface, the radius 158 that passes through a midpoint 162 of the contact area of the cam surface 148 with the block 143 (in the position shown in FIGS. 15 and 16), is offset by a distance d with respect to a pivotal axis 29a of the arm 25. This offset provides for a progressive *frictional* engagement of the cam surface 148 with the block contact surface 154 as the arm rotates clockwise about the axis 29a. **In other words, the cam surface 148 slides along or rubs against the block contact surface 154 as the arm rotates.** Accordingly, the arm 25 comes to a controlled, frictionally-induced stop instead of substantially compressing the dampening block 143 which would otherwise cause a subsequent counterclockwise rebound or bounce.

Banks '290 discloses resilient buffers 90, 91 that are *compressed* between a stop means and mounting means by movement of a swing arm, column 2, lines 61-64. In Figure 7, each of the buffers 90, 91 includes a domed surface 95, 96 respectively. This reference does not disclose "said second link having a pressing surface that slides against said dampening element as said second link pivots in said second rotary direction to progressively frictionally arrest pivoting movement of the second link in the second rotary direction."

Because the issue of the difference between a *frictional* arresting and a

mere *compression* arresting of the pivoting movement of the second link has already been presented as an issue in Amendment A, no new issues are presented herein by merely further clarifying the definition of friction in the context of the claim.

Applicant submits that the 102(b) rejection has been overcome and requests withdrawal of the rejection.

The Examiner next rejected claim 25 under 35 USC 103(a) over *Banks* '290. Claim 25 should be allowable based on the asserted allowability of claim 1 and also because Banks '290 does not disclose the cam arrangement set forth in claim 25.

The Examiner next indicated that claims 5-23 were allowed. Applicant acknowledges this allowance with appreciation.

Some claims above have been corrected for antecedent clarity.

Applicant submits that all claims are now in condition for allowance.

Respectfully submitted,

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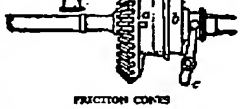
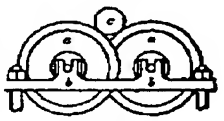
fret'ten, *a.* marked; as, pock-*fretten*, marked with the smallpox. [Obs.]
fret'ter, *n.* one who or that which frets.
fret'ty, *a.* adorned with or as if with fretwork.
frē'tum, *n.*; *pl.* **frē'tȧ**, [L.] a strait or arm of the sea.
fret'wŏrk, *n.* work adorned with frets; ornamental work with interlacing parts.
Freu'di·ăn (froi'), *a.* of or according to Sigmund Freud or his theories and practices: see *psychoanalysis*.
Freu'di·ăn, *n.* a person who believes in Freud's theories or uses Freud's methods in psychoanalysis.
Freu'di·ăn·işm, *n.* the theories and practices of Sigmund Freud (1856–1939), Viennese psychologist, especially in regard to the causes and treatment of neuroses.
Frey, *n.* [ON. *Freyr.*] in Norse mythology, the god of the crops, fruitfulness, love, peace, and prosperity.
Freȳ'ȧ (frī'), *n.* in Norse mythology, the goddess of love and beauty, sister of Frey: written also *Frea, Freyia, Freyja*.
Freyr, *n.* Frey.
fri·ȧ·bil'i·ty, *n.* [L. *friabilis*, from *friare*, to rub, crumble.] the quality or state of being friable.
fri'ȧ·ble, *a.* [Fr. *friable*; L. *friabilis*, from *friare*, to rub, crumble.] easily crumbled or pulverized; easily reduced to powder, as pumice.
fri'ȧ·ble·ness, *n.* friability.
fri'ăr, *n.* [from OFr. *frere*; Pr. *fraire, frar*; It. *frate*, from L. *frater*, brother.]
1. in the Roman Catholic Church, a member of any of several religious orders, but especially of one of the four mendicant monastic orders known as the Franciscans, Augustinians, Dominicans, and Carmelites.
2. in printing, any part of a page which has not received a proper impression, and hence is gray or indistinct.
3. any of various small American fishes; silversides; a sand smelt.
4. the friarbird, or leatherhead.
5. the angler, *Lophius piscatorius*. [Ir.]
friar's balsam; an alcoholic solution of benzoin, styrax, tolu balsam, and aloes, used as an application for wounds and ulcers.
fri'ăr·bird, *n.* an Australian bird, *Tropidorhynchus corniculatus*, that eats the honey or nectar from flowers and has a naked, featherless head: also called *leatherhead, poor soldier*, etc.
fri'ăr·ly, *a.* resembling a friar in manner or character; monkish.
fri'ăr'ş·cap, *n.* the wolfsbane, or monkshood, *Aconitum napellus*, the sepals of which are hooded.
fri'ăr'ş·cowl, *n.* the wake-robin, *Arum maculatum*.
fri'ăr'ş·crown, *n.* the European wool thistle, *Cnicus eriophorus*: called also *friar's-thistle*.
fri'ăr skāte, a sharp-nosed skate, *Raia alba*, of Europe.
fri'ăr'ş·lan'tẽrn, the ignis fatuus or will-o'-the-wisp.
fri'ăr'ş·thi͟s'tle (-this'l), *n.* see *friar's-crown*.
fri'ăr·y, *a.* pertaining to a friar or to a monastery.
fri'ăr·y, *n.* 1. a monastery; a place where friars live.
2. a brotherhood of friars.
fri·ā'tion, *n.* the act of crumbling into small pieces. [Obs.]
frib'ble, *a.* [altered from Fr. *frivole*, perh. under echoic influence.] frivolous; trifling; silly.
frib'ble, *n.* 1. a person who wastes time.
2. any trifling act or thought.
frib'ble, *v.i.*; fribbled, *pt., pp.*; fribbling, *ppr.*
1. to trifle; to waste time or behave in a foolish, frivolous way.
2. to stand or walk unsteadily; to totter. [Obs.]
frib'ble, *v.t.* to deal with in a trifling manner.
frib'blẽr, *n.* a trifler; a fribble.
frib'bling, *a.* foolish; trifling; frivolous.
frĭ'bŏrg, frĭ'bŏrgh (-bûrg), *n.* [AS. *frith-borh*, lit., peace pledge; *frith*, peace, and *borh*, pledge.] same as *frankpledge*.
frĭ·căn·deau' (-dō'), *n.*; *pl.* **frĭ·căn·deaux'** (-dōz'). [Fr.] a thick slice of veal or other meat, roasted or stewed and served with a sauce: also written *fricando*.
frĭç·an·delle', frĭç·an·del', *n.* [Fr.] meat, eggs, spices, etc. rolled into balls and boiled or fried.
frĭç·ăs·see', *n.* [Fr., properly f. pp. of *fricasser*, to cut up and fry.] meat cut into pieces, stewed or fried, and served in a sauce of its own gravy.
frĭç·ăs·see', *v.t.*; fricasseed, *pt., pp.*; fricasseeing, *ppr.* to cook as a fricassee.
frĭ·cā'tion, *n.* [L. *fricatio*, from *fricare*, to rub.] the act of rubbing; friction. [Obs.]
frĭç'ȧ·tive, *a.* [L. *fricatus*, pp. of *fricare*, to rub.] formed and pronounced by forcing the breath through a narrow opening between the teeth, lips, etc.: said of certain consonants, as *f, s, v*, and *z*.
frĭç'ȧ·tive, *n.* a fricative consonant.
frĭç'ȧ·trice, *n.* a harlot. [Obs.]
frĭç'kle, *n.* a bushel basket. [Obs.]
frĭç'tion, *n.* [Fr. *friction*; L. *frictio*, from *fricare*, to rub.]
1. the rubbing of one body against another.
2. disagreement or conflict because of differences of opinion, temperament, etc.
3. in mechanics, the resistance to motion of two moving objects or surfaces that touch.
4. in medicine, the rubbing of the body so as to stimulate the circulation.
angle of friction; the maximum angle of an inclined plane on which a body will rest without sliding down.
coefficient of friction; the ratio between the force necessary to move one of any two surfaces horizontally over the other, and the pressure between the two surfaces: the *coefficient of friction* for oak and cast-iron is 38:100, or .38.
Syn.—rubbing, grating, attrition, abrasion, contact.
frĭç'tion·ăl, *a.* of or produced by friction; as, *frictional* electricity.
frictional gearing; wheels which produce motion not by teeth but by friction.
frĭç'tion·ăl·ly, *adv.* by or with friction.
frĭç'tion ballş, balls placed in a hub or journal to reduce the friction of a revolving axle.
frĭç'tion brāke, a form of dynamometer: also, a brake operating by friction.
frĭç'tion chocks, small inclined planes of wood or iron, placed directly behind the wheels of a gun carriage to overcome the force of the recoil.
frĭç'tion clutch, in machinery, a clutch, operated by friction, used for connecting machines which need to be frequently engaged and disengaged or which are subject to sudden variations of resistance.
frĭç'tion com'pound, same as *friction powder*.
frĭç'tion cŏnes, in machinery, a slip coupling, consisting of two cones *a b*, of which the one *a* is formed on the back of the driving wheel, loose on the driving shaft, and the other *b* forms part of a sliding block (attached to the shaft by a sunk feather) and fits accurately into the interior of that formed on the back of the wheel. The sliding block can be thrown in and out of gear in the ordinary way, by means of a fork *c*, and the transmission of motion depends on the friction of the two conical surfaces. If the load on the machine, which is driven by the second shaft, is suddenly changed, the adhesion between the surfaces of the cones allows them to slip, and thus breakage is avoided.


FRICTION CONES

frĭç'tion gēar, see *frictional gearing* under *frictional*.
frĭç'tion ham'mẽr, a hammer lifted by the friction of revolving rollers.
frĭç'tion·less, *a.* having or producing no friction.
frĭç'tion mȧ·chīne', a machine which generates frictional electricity.
frĭç'tion match, a match that lights by friction.
frĭç'tion mē'tẽr, a device for estimating friction in machinery, as affected by different lubricants.
frĭç'tion pow'dẽr, a compound, as of antimony and chlorate of potash, that is easily ignited by friction.
frĭç'tion prīm'ẽr, a device for firing cannon by the friction of a rough wire and friction powder in a tube: called also *friction tube*.
frĭç'tion tāpe, an adhesive tape for insulating exposed electrical wires: also, *electric tape* or *insulating tape*.
frĭç'tion tūbe, a friction primer.
frĭç'tion wheel (hwēl), in machinery, (a) a slip coupling applied in cases where the variations of load are sudden and great, as in dredging machinery, etc. It consists of a strong plain pulley B, keyed on the driving shaft; on the circumference of this a wheel A is fitted, with a series of friction plates *a a a* interposed, and retained in recesses formed in the eye of the wheel. Behind each of these plates a setscrew *b* is inserted, which bears against the back of the plate and can be tightened to regulate the degree of friction required for the ordinary work; should the pressure on the circumference of the wheel A exceed this, the plates slide upon the circumference of the pulley B, which continues to revolve with the shaft, and the wheel itself remains stationary; (b) one of two simple wheels or cylinders intended to assist in diminishing the friction of a horizontal axis. The wheels are simple cylinders *a a*, carried on parallel and independent axes *b b*. They are arranged so as to overlap pair and pair at each end of the main axis *c*, which rests in the angles thus formed by the circumferences. The axis, instead of sliding on a fixed surface, as in ordinary cases, carries round the circumferences of the wheels on which it is supported with the same velocity as it possesses itself, and in consequence the friction of the system is proportionally lessened.


FRICTION WHEEL


FRICTION WHEELS

Frī'dāy, *n.* [ME. *fridai*; AS. *frigedæg*, lit., day of the goddess *Frig*, wife of Wodan, transl. L. *Veneris dies*, Venus' day.]
1. the sixth day of the week.
2. the devoted servant of Robinson Crusoe.
3. a faithful follower or helper: usually *man* (or *girl*) *Friday*.
fridge (frij), *v.i.* [AS. *fricsian*, to dance.] to fidget; to frisk about hastily. [Obs.]
frid'stōle, *n.* same as *frithstool*.
fried, *v.* past tense and past participle of *fry*.
fried'cāke, *n.* a small cake fried in deep fat; doughnut or cruller.
friend (frend), *n.* [ME. *frend, freond*; AS. *freond*, properly ppr. of *freon, freogan*, to love.]
1. a person whom one knows well and is fond of; intimate associate; close acquaintance: applied loosely to any associate or acquaintance, or, as a term of address, even to a stranger.
2. a person on the same side in a struggle; ally: opposed to *foe*.
3. a favorer; a supporter or sympathizer; as, a *friend* to commerce; a *friend* to poetry.
4. a lover. [Colloq.]
5. [F–] a member of the Society of Friends; a Quaker.
a friend at court; a person in an influential position who is friendly toward one and able to help him.
Society of Friends; a Christian religious sect founded in England in 1650 by George Fox: the Friends have no formal creed, rites, liturgy, or priesthood, reject violence in human relations, including war, and accord women equal status with men.
to be friends with; to be a friend of.
to make friends with; to become a friend of.
Syn.—associate, companion, acquaintance, familiar, ally, chum, messmate, coadjutor, confidant, adherent.
friend, *v.t.*; friended, *pt., pp.*; friending, *ppr.* to favor; to befriend; to support or aid. [Rare.]
friend'less, *a.* without friends.
friend'like, *a.* like a friend.
friend'li·ness, *n.* 1. the condition or quality of being friendly; good will.
2. exercise of benevolence or kindness.
friend'ly, *a.*; *comp.* friendlier; *superl.* friendliest, 1. having the disposition of a friend;